

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 43-61 will be pending in the application subsequent to entry of this Amendment.

As a preliminary matter, this application contains five sheets/five figures of drawings yet item 10 of the Office Action Summary does not indicate acceptance or not of these drawings. As they arise from an international application and U.S. national stage entry, it is counsel's understanding that these drawings are acceptable. The examiner is requested to indicate item 10 a) that the drawings are accepted in the next communication.

The claims have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention and to direct them to preferred aspects of the disclosure. For convenience an entire new claim set is presented, all of claims 1-42 being canceled either now or in previous Amendments.

Claim 43 has been drafted to specify the polymer dopes which may be used to produce the composite fibers of the invention. Basis for this amendment may be found on pages 8-17 of the application as filed. In addition, it is now a requirement that the fibers of claim 43 be produced by sonicating the metal nanoparticles and polymer dope. Basis for this amendment may be found on page 5, lines 23-24 of the application as filed.

Turning next to the five prior art rejections of record, three documents were cited, Burrell (US 2001/0055622), Qin (WO 02/36866) and Dresdner (US 5,357,636). Of these, Burrell is considered by the Examiner to be by far the most relevant it being cited as the sole or primary reference for novelty and obviousness.

However, there is no teaching in Burrell of extrusion or sonication giving the above claims clear novelty. In addition, the general teaching of this document is materials from which the metal nanoparticles are released, when they come into contact with an alcohol or water-based electrolyte, provide a sustained antimicrobial effect (*see*, for instance, paragraph [0019]). The only teaching in this document of polymer matrices appears in paragraph [0078] and as such the general teaching of this document is away from the retention of the nanoparticles in polymer matrices. It teaches a skilled person that controlled leaching over a period of time is beneficial. For this reason, a person skilled in the art following the teaching of Burrell would not focus on the disclosure of paragraph [0078] and prepare matrices as described therein.

In addition, even in the highly unlikely event that they were to do this, there is no disclosure anywhere in Burrell of a sonication step and it is the presence of this sonication step combined with the fiber extrusion process as claimed that provides the thorough mixing of the nanoparticles into the polymer matrix such that an integrated mixture is formed. It is the formation of this truly integrated mixture which allows the composite fiber of the invention to be used to produce textiles which retain their beneficial properties over time (*see* page 1, lines 11-12 and page 3, lines 3-12 of the application as filed). On this basis, the subject matter of new claim 43 is novel in view of Burrell.

Further, the arguments put forward above with regard to Burrell and the lack of teaching of sonication apply equally to Qin. This document relates to the provision of composite fibers with antimicrobial properties (page 2, lines 13-14). The use of silver nanoparticles with alginate fibers is discussed and said to have beneficial properties in that the silver compound may leach from the fibers (page 3, lines 8-9). Therefore, the person skilled in the art reading this document would discard its teaching for the reasons that they would discard the teaching of Burrell -- simply that if they were seeking to produce fibers in which the beneficial properties are present for an extended period of time they would not consider Qin as the teachings of the document totally conflict with the aims of the present invention. Even were they to pursue the teachings of this document they would fail to reach a solution as defined in the above claims as there is no teaching anywhere in Qin that the addition of a sonication step may be advantageous. It is this feature which provides the true integration of a nanoparticle with the polymer matrix retaining the nanoparticle therein and offering the extended beneficial effect.

Regarding the Dresdner document, this was cited against claim 35 only (now new claim 57) and offers substantially different teachings from Burrell and Qin. The examiner will note that there is no teaching in this document of sonication or extrusion and as such it is of even less relevance than the other cited documents.

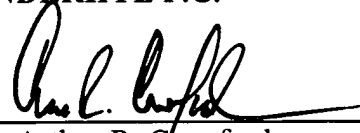
For the above reasons it is respectfully submitted that the claims of this application define inventive subject matter. Reconsideration and allowance are solicited. Should the examiner have any questions, please contact the undersigned.

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Respectfully submitted,

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By: _____



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